

Amendments to the Claims:

1. (currently amended) A method of authenticating a GPRS communication unit on GPRS and local network communication systems through an access point of a local network, the method comprising the steps of:

the GPRS communication unit attaching to the access point using a local network protocol; and

combined authenticating of the GPRS communication unit with the GPRS network and the local network via a single authentication procedure by communicating GPRS authentication messages between the GPRS communication unit and a GPRS authentication element through the access point by encapsulation of the GPRS authentication messages in an extensible local network authentication messages that includes at least one data element that is ignored by the local network but contains the GPRS authentication message.

2. (currently amended) The method of authenticating the GPRS communication unit as claimed in claim 1 further comprising the step of authorizing the access ~~port~~ point for the GPRS communication unit only if the GPRS communication unit is authenticated by the GPRS authentication element.

3. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of the access point requesting an identity from the GPRS communication unit.

4. (previously presented) The method of authenticating as claimed in claim 2 wherein the step of authenticating comprises the step of the GPRS communication unit transmitting an identity to the access point.

5. (previously presented) The method of authenticating as claimed in claim 3 wherein the identity includes a GPRS subscriber identity.

6. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of the access point communicating an access message to the GPRS authentication element indicating that the GPRS communication unit has attached to the access point.

7. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of communicating a GPRS Authentication Initiation message from the GPRS authentication element to the access point, and the step of communicating the GPRS Authentication Initiation message encapsulated in the local network authentication message from the access point to the GPRS communication unit.

8. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step communicating a GPRS Attach Request message encapsulated in the local network authentication message from the GPRS communication unit to the access point, and the step of communicating the GPRS Attach Request message from the access point to the GPRS authentication element.

9. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of the GPRS authentication element retrieving authentication data associated with the GPRS communication unit from a Home Location Register.

10. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of the communicating a GPRS Authentication and Ciphering Request message from the GPRS authentication element to the access point, and the step of communicating the GPRS Authentication and Ciphering Request message encapsulated in the local network authentication message from the access point to the GPRS communication unit.

11. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step communicating a GPRS Authentication and Ciphering Response message encapsulated in the local network authentication message from the GPRS communication unit to the access point, and the step of communicating the GPRS Authentication and Ciphering Response message from the access point to the GPRS authentication element.

12. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of the communicating a GPRS Attach Accept message from the GPRS authentication element to the access point, and the step of communicating the GPRS Attach Accept message encapsulated in the local network authentication message from the access point to the GPRS communication unit.

13. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of communicating a GPRS Attach Complete message encapsulated in the local network authentication message from the GPRS communication unit to the access point, and the step of communicating the GPRS Attach Complete message from the access point to the GPRS authentication element.

14. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of the GPRS authentication element communicating with a Home Location Register to perform a GPRS location update.

15. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the step of communicating an authentication success message from the GPRS authentication element to the access point, and the step of authorizing the access point for GPRS communication for the GPRS communication unit in response to receiving the authentication success message.

16. (previously presented) The method of authenticating as claimed in claim 1 wherein communication of GPRS authentication messages from the GPRS authentication element to the access point are by encapsulating the GPRS authentication messages in the local network authentication messages.

17. (previously presented) The method of authenticating as claimed in claim 1 wherein the authentication is part of a routing area update.

18. (previously presented) The method of authenticating as claimed in claim 1 wherein the step of authenticating comprises the steps of:

communicating a GPRS Authentication Initiation message from the GPRS authentication element to the access point, and the step of communicating the GPRS Authentication Initiation message encapsulated in the local network authentication message from the access point to the GPRS communication unit; followed by the step of:

communicating a GPRS Attach Request message encapsulated in a local network authentication message from the GPRS communication unit to the access point, and the step of communicating the GPRS Attach Request message from the access point to the GPRS authentication element; followed by the step of:

communicating a GPRS Authentication and Ciphering Request message from the GPRS authentication element to the access point, and the step of communicating the GPRS Authentication and Ciphering Request message encapsulated in the local network authentication message from the access point to the GPRS communication unit; followed by the step of:

communicating a GPRS Authentication and Ciphering Response message encapsulated in a local network authentication message from the GPRS communication unit to the access point, and the step of communicating the GPRS Authentication and Ciphering Response message from the access point to the GPRS authentication element; followed by the step of:

communicating a GPRS Attach Accept message from the GPRS authentication element to the access point, and the step of communicating the GPRS Attach Accept message encapsulated in a local network authentication message from the access point to the GPRS communication unit; followed by the step of:

communicating a GPRS Attach Complete message encapsulated in a local network authentication message from the GPRS communication unit to the access point, and the step of communicating the GPRS Attach Complete message from the access point to the GPRS authentication element; and followed by the step of:

communicating an authentication success message from the GPRS authentication element to the access point, and the step of authorizing the access point for GPRS communication in response to receiving the authentication success message.

19. (previously presented) The method of authenticating as claimed in claim 1 wherein the local network is a Wireless Local Area Network (WLAN).

20. (previously presented) The method of authenticating as claimed claim 15 wherein the Wireless Local Area Network (WLAN) conforms to the Institute of Electrical and Electronic Engineers standard no. 802.1x.

21. (canceled).

22. (previously presented) The method of authenticating as claimed in claim 1 wherein the local network authentication messages are Extensible Authentication Protocol messages.

23. (previously presented) The method of authenticating as claimed in claim 1 wherein the GPRS authentication element is a Serving GPRS Support Node (SGSN).

24. (previously presented) The method of authenticating as claimed in claim 1 wherein the GPRS communication unit is a dual-mode communication unit operable to communicate in accordance with a GPRS protocol and the local network protocol.

25. (currently amended) A communication system comprising a GPRS communication network and a local network, the communication system comprising:

means for a GPRS communication unit to attach to an access point using a local network protocol; and

means for combined authenticating of the GPRS communication unit with the local network and the GPRS network via a single authentication procedure by communicating GPRS authentication messages between the GPRS communication unit and a GPRS authentication element through the access point by encapsulation of the GPRS authentication messages in an extensible local network authentication messages that includes at least one data element that is ignored by the local network but contains the GPRS authentication message local network authentication messages.